UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/956,889	09/21/2001	Jayanta K. Dey	SVC-3003941	2423

26381   7590   09/16/2005

LACASSE & ASSOCIATES, LLC
1725 DUKE STREET
SUITE 650
ALEXANDRIA, VA 22314

EXAMINER
BLACK, LINH

ART UNIT	PAPER NUMBER
2167	

DATE MAILED: 09/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/956,889	DEY ET AL.
	Examiner	Art Unit
	LINH BLACK	2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _21 September 2001_.

2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-32_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1,3-11,14-19 and 22-32_ is/are rejected.

7)☒ Claim(s) _2,12,13,20 and 21_ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage
application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _9/21/01_.

4)☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

This communication is in response to the document dated 4/8/03. Claims 1-32 are

pending in this application. Claims 1, 7, 11, 19, 27 and 32 are independent claims.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly

claiming the subject matter which the applicant regards as his invention.

Claim 14 recites the limitation "said" in the limitation "said weight". There is

insufficient antecedent basis for this limitation in the claim.

Claim Objections

The claims 1, 7, are objected to because they include reference characters,

which are not enclosed within parentheses.

Reference characters corresponding to elements recited in the detailed

description of the drawings and used in conjunction with the recitation of the same

element or group of elements in the claims should be enclosed within parentheses so

as to avoid confusion with other numbers or characters which may appear in the claims.

See MPEP § 608.01(m).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1, 4-6, 14-15, 19 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Liu et al. (US 6675159) and further in view of Spencer (US

5826261).

As per claim 1, Lin et al. teach searching multimedia documents from an ontology – col.

6, lines 32-51; col. 8, lines 43-65; ontological data and databases – col. 11, lines 5-44.

In the specification, page 2, Applicants state that "ontology: the hierarchical

structuring of knowledge about objects by sub-categorizing based on their relevant

qualities"; ""annotation" and "keyword" equivalent". On page 9 of the specification, last

paragraph, Applicants state, that "lIndex treats these leaning instances as a bag of

words to be indexed..."

Lin et al. teach clustering, ontology and nodes – col. 13, lines 25-50.

learning data preparation component accessing mappings of annotations in said

ontology and fusing annotations mapped in each of said nodes to form learning

instances – col. 10, lines 13-41; col. 13, lines 25-39; col. 16, lines 27-40; col. 18, lines

17-30; col. 24, lines 41-59.

searching, queries and data retrieval using inverted index, and ranking of index

documents – col. 1, lines 34-67; col. 11, lines 25-44; term frequency – col. 3, lines 35-

44; ontological concepts and adaptive weights allocated to each node – col. 18, lines

17-32; classifying new documents, form new training set, new concept is added to the

ontology – col. 10, lines 48-61; col. 11, lines 25-44; col. 12, lines 11-29.

an information retriever extracting information related to said requested

annotations/keywords from said most relevant nodes and said one or more databases

over said network – col. 12, line 30 to col. 13, line 25.

a contextual information linker linking multimedia content with said extracted information

– col. 1, lines 34-67; col. 21, lines 24-29.

However, Lin et al. do not explicitly teach inverse document frequency and

contribution frequency. Spencer teaches text or information retrieval from multiple,

distributed database – col. 1, lines 10-11; local relative contribution that various term

would have on the results of a query within each of the document databases; term

frequency, and idf – col. 3, lines 25-40; inverted index and a contribution table – col. 10,

lines 11-19; col. 11, line 25 to col. 12, line 19. Thus, it would have been obvious to one

of ordinary skill in the art at the time of the invention to combine Liu et al.'s teaching and

Spencer et al.'s teaching to better analyze and map multimedia annotations/keywords to

ontologies.

As per claim 4, Liu et al. teach access to the ontology data - col. 11, lines 25-43; end

user interface – fig. 1, item 114. However, Liu et al. do not explicitly teach wherein said

annotations are accessible via any of the following devices: an interactive television, a

computer..., a telephone. Spencer teaches the client computer 101 direct the user's

query to the query router – col. 18, lines 30-61. Thus, it would have been obvious to

one of ordinary skill in the art at the time of the invention to combine Liu et al.'s teaching

and Spencer et al.'s teaching in order to allow efficient accesses to ontologies from

users' devices.

As per claim 5, Liu et al. teach wherein said network is any of the following: WAN, LAN,

wireless network, Internet, or telephony network – col. 1, lines 15-22; col. 20, lines 10-

19.

As per claim 6, Liu et al. teach tokenizing said learning instances – col. 16, lines 27-40;

stemming said tokenized learning instances – col. 12, lines 65-66; stop-word filter – col.

14, lines 33-49.

As per claim 14, Lin et al. do not explicitly teach contribution frequency. Spencer

teaches text or information retrieval from multiple, distributed database – col. 1, lines

10-11; local relative contribution that various term would have on the results of a query

within each of the document databases; term frequency, and idf – col. 3, lines 25-40;

inverted index and a contribution table – col. 10, lines 11-19; col. 11, line 25 to col. 12,

line 19; error contribution weight – col. 5, lines 13-33; frequency of terms and weight

pair – col. 6, lines 43-63; col. 13, lines 30-64; col. 14, lines 52-62. Thus, it would have

been obvious to one of ordinary skill in the art at the time of the invention to combine Liu

et al.'s teaching and Spencer et al.'s teaching to better analyze and map multimedia

annotations/keywords to ontologies.

As per claim 15, Lin et al. teach wherein said annotations are retrieved from any of the

following sources: text documents, message boards, chat rooms, product descriptions,

and multimedia documents...- col. 10, lines 17-33; col. 14, lines 23-44.

As per claim 19, Lin et al. teach a server receiving requests for contextual information

for a selected multimedia representation – col. 9, lines 28-47; searching multimedia

documents from an ontology – col. 6, lines 32-51; col. 8, lines 43-65; ontological data

and databases – col. 11, lines 5-44; mappings of annotations in said ontology and

annotations mapped in each of said nodes – col. 10, lines 13-41; col. 13, lines 25-39;

col. 16, lines 27-40; col. 18, lines 17-30; col. 24, lines 41-59; searching, queries and

data retrieval using inverted index, and ranking of index documents – col. 1, lines 34-67;

col. 11, lines 25-44; ontological concepts and adaptive weights allocated to each node –

col. 18, lines 17-32; classifying new documents, forming new training set, and new

concept is added to the ontology – col. 10, lines 48-61; col. 11, lines 25-44; col. 12, lines

11-29; renders said retrieved information comprising said multimedia and said retrieved

contextual information – col. 7, lines 10-23; col. 11, lines 25-44.

Spencer further improve Lin et al.'s teaching of a server receiving requests for

contextual information... at col. 8, lines 42-52; col. 9, line 15 to col. 10, line 19. Spencer

teaches text or information retrieval from multiple, distributed database – col. 1, lines

10-11; local relative contribution that various term would have on the results of a query

within each of the document databases– col. 3, lines 25-40. Thus, it would have been

obvious to one of ordinary skill in the art at the time of the invention to combine Liu et

al.'s teaching and Spencer et al.'s teaching in order to allow users to better serve users

in data retrieval.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al.

(US 6675159), Spencer (US 5826261), and further in view of Liddy et al. (US

6304864).

As per claim 3, Liu et al. teach: "inverted index that links keywords with the documents

in which they appear. Documents with the most keywords that match the input query

are retrieved." – col. 1, line 34-48; col. 13, lines 25-40; col. 26, lines 42-48; text content

– col. 7, lines 11-22; col. 10, lines 17-33. However, Liu and Liddy et al. do not explicitly

disclose wherein said multimedia documents comprises audio, graphics, video

documents. Liddy et al. teach a system for retrieving multimedia information from a

computer-based network, such as Internet – col. 1, lines 11-22; "the information of the

documents retrieved may be of one or more multiple media types, such as text, graphic,

audio, video, or any, as defined in the user profile" – col. 4, lines 52-55; key terms and

frequency of the subject categories – col. 11, lines 9-26; automatic relevant

determination – col. 12, lines 32-41. Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention to combine Liu et al.'s teaching,

Spencer et al.'s teaching, and Liddy et al.'s teaching to efficiently map all digital

document types' annotations/keywords to ontologies.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by
another filed in the United States before the invention by the applicant for patent or (2) a patent
granted on an application for patent by another filed in the United States before the invention by the
applicant for patent, except that an international application filed under the treaty defined in section
351(a) shall have the effects for purposes of this subsection of an application filed in the United States
only if the international application designated the United States and was published under Article 21(2)
of such treaty in the English language.

Claim 27 is rejected under 35 U.S.C. 102(e) as being aniticipated by Lin et al.

(US 6675159).

As per claim 27, Lin et al. teach extracting annotations from a multimedia document

segment – col. 12, lines 11-18; col. 16, lines 51-67.

mapping said extracted multimedia document segment to an appropriate node in said

ontology – col. 13, lines 25-40; col. 18, lines 9-51.

comparing to other related content mapped to said appropriate node – col. 1, lines 34-

67; col. 9, lines 2-8; col. 25, lines 58-67; col. 26, lines 42-48.

clustering, ontology and nodes – col. 13, lines 25-50; classifying new documents, form

new training set, new concept is added to the ontology – col. 10, lines 48-61; col. 11,

lines 25-44; col. 12, lines 11-29.

linking multimedia content with said extracted information – col. 1, lines 34-67; col. 21,

lines 24-29.

Claim 28 is rejected under 35 U.S.C. 103(a) as being unpatentable over Liu et al. (US

6675159), and further in view of Liddy et al. (US 6304864).

As per claim 28, Lin et al. teach classifying new documents, forming new training set,

and new concept is added to the ontology – col. 10, lines 48-61; col. 11, lines 25-44;

col. 12, lines 11-29. (Examiner did not find the definition of the limitation: pre-

certification in the specification.) However, Liddy et al. further teach the agent leader

...continuously updates the rank as new documents are retrieved by agents – col. 11,

lines 27-39; automatically update ranking of relevant documents based on users'

selections - col. 3, lines 40 to col. 4, line 28. Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention to combine Liu et al.'s teaching,

Spencer's teaching with Liddy et al.'s teaching to better update documents ranks based

on relevancy, user profiles, etc...to better provide importance or most relevant

documents to users.

Claims 7-11, 16-18, 24-26, 29-32 claims the same subject matters as of claims 1, 3-6

and are rejected based on the same ground of rejection as of claims 1, 3-6.

Allowable Subject Matter

Claims 2, 12-13, 20-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to LINH BLACK whose telephone number is 571-272-4106. The examiner can normally be reached on 8am - 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, JOHN BREENE can be reached on 571-272-4107. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.
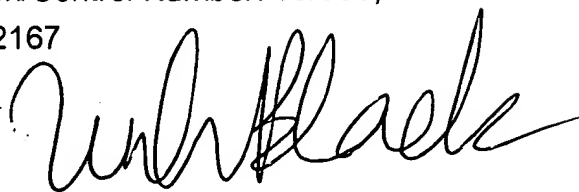
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

LINH BLACK

Art Unit: 2167

Examiner
Art Unit 2167

September 13, 2005

Primary Examiner
Art Unit 2167